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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,515	02/14/2001	Soren Haubold	GR 98 P 2340 P	2099
24131	7590	01/21/2005	EXAMINER	
LERNER AND GREENBERG, PA P O BOX 2480 HOLLYWOOD, FL 33022-2480			CHEN, TSE W	
			ART UNIT	PAPER NUMBER
			2116	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,515

Applicant(s)

HAUBOLD, SOREN

Examiner

Tse Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-16 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. It is hereby acknowledged that the following papers have been received and placed of record in the file: Amendment dated December 20, 2004.

2. Claims 1 and 5-16 are presented for examination. Applicant has canceled claims 2-4.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 11-12, 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Wendelrup et al., U.S. Patent 5943613, hereinafter Wendelrup.

5. In re claim 11, Wendelrup discloses a configuration for supplying a clock signal to processor-controlled apparatuses having a processor device and associated with a device for determining a clock time, the improvement comprising:

- A clock selector unit [inherently, a clock selector unit in the broadest interpretation is needed to switch between clock frequencies] connected to the processor device [inherently, a processor device in the broadest interpretation is needed to process communication load] for selecting a frequency to be fed to the processor device, as a function of a processor load [col.2, ll.24-30; col.3, ll.2-12; communication processor usually runs on higher frequency, e.g., 13 MHz to process communication load,

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except during low or no processor load periods when the communication device is switched to the lower frequency, e.g., 32 kHz].

- An oscillator having a clock quartz [low cost crystal] for generating a quartz frequency [e.g., 32 kHz], the oscillator being configured to feed a clock frequency based on the quartz frequency or a frequency derived therefrom to the device for determining the clock time [real time clock display runs on lower frequency from low cost crystal] [col.1, ll.29-33; col.3, ll.55-56].
- Said clock selector unit feeding a clock frequency based on the quartz frequency or on a frequency derived therefrom to the processor device when there is no processor load or when there is low processor load [standby or idle] [col.2, ll.24-30; col.3, ll.2-12; communication processor usually runs on higher frequency, e.g., 13 MHz to process communication load, except during low or no processor load periods when the communication device is switched to the lower frequency, e.g., 32 kHz].
- Otherwise the processor device being clocked with a system clock [vcxo] [col.1, ll.22-28; col.3, ll.2-4; communication processor usually runs on higher frequency, e.g., 13 MHz to process communication load].

6. In re claims 12, 14-15, Wendelrup taught each and every limitation of the claim as discussed above in reference to claim 11. Claim 11 is directed to the configuration implementing the method of claims 12, 14-15. Wendelrup taught the configuration as set forth in claim 11. Therefore, Wendelrup also taught the method as set forth in claims 12, 14-15.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 5-10, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wendelrup, in view of Harper et al., U.S. Patent 5560024, hereinafter Harper.

9. In re claim 1, Wendelrup discloses a method for supplying a clock signal to processor-controlled apparatuses [abstract; reduce power consumption in communication processing devices via clock control], which comprises:

- Generating a quartz frequency [e.g., 32 kHz] with a clock quartz [low cost crystal] [col.1, ll.31-33; col.3, ll.55-56].
- Providing a clock frequency based on the quartz frequency of the clock quartz to a device for determining a clock time [col.1, ll.29-33; real time clock display runs on lower frequency from low cost crystal].
- Providing the clock frequency to a processor device during operational time periods of low processor load or no processor load [standby or idle] and otherwise providing a different clock frequency to the processor device [fig.3, 10, 22; col.2, ll.24-30; col.3, ll.2-12; communication processor usually runs on higher frequency, e.g., 13 MHz to process communication load, except during low or no processor load periods when the communication device is switched to the lower frequency, e.g., 32 kHz].
- Selecting the clock signal as a function of processor load according to the following:

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- During operational time periods with low processor load or no processor load, providing the same clock signal to the processor device as to the device for determining a clock time [col.2, ll.24-30; system timing determined from lower frequency clock].
- During operational time periods with processor loading, providing a clock signal based on a system clock [vcxo] to the processor device [col.1, ll.22-28; col.3, ll.2-4; communication processor usually runs on higher frequency, e.g., 13 MHz to process communication load].

10. Wendelrup did not disclose expressly a clockless state.

11. Harper discloses a power management system comprising of a real time clock and various power states including a clockless state during operation time periods with no processor load [col.4, ll.38-43].

12. An ordinary artisan at the same time the invention was made would have been motivated to look for a way to reduce power consumption for a device that performs real-time maintenance and other processing functions that utilize different clock frequencies [Harper: col.4, ll.11-28].

13. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Harper and Wendelrup because of the aforementioned motivation and also their involvement in similar problems regarding power conservation in systems with multiple devices utilizing different clock frequencies.

14. As per claim 5, Harper taught clocking the processor device with a reduced frequency during operational time periods with low processor load, the reduced frequency being lower than

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the frequency of the system clock and higher than the quartz frequency or the frequency derived therefrom [fig. 1; col.7, ll.1-7].

15. As per claim 6, Harper taught initiating, with the processor device, a selection of a clock frequency to be fed to the processor device, being lower than a current frequency fed to the processor device [col.7, ll.18-19, ll.30-32].

16. As per claim 7, Harper taught initiating, with the processor device, a selection of a clock frequency to be fed to the processor device, being higher than a current clock frequency fed to the processor device [col.7, ll.8-16].

17. As per claim 8, Harper taught initiating, with external events, a selection of a clock frequency to be fed to the processor device, being higher than a current clock frequency fed to the processor device [col.7, ll.8-16].

18. As per claim 9, Harper taught initiating, after expiration of a predefined time period, a selection of a clock frequency to be fed to the processor device, being higher than a current clock frequency fed to the processor device [col.7, ll.8-16].

19. As per claim 10, Harper taught temporarily switching off not-required components of an apparatus as a function of the clock frequency fed to the processor device [col.7, ll.30-36].

20. As per claim 16, Harper taught a power management system comprising of a real time clock and various clock frequencies, the selecting of a clock frequency as a function of processor load is based in part on received processor control signals, interrupt control signals, and timer control signals [col.7, l.57 to col.8, l.13].

21. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wendelrup as applied to claim 12 above.

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22. Wendelrup taught a power management system and disclose expressly two power modes [column 3, lines 4-5]. However, it would have been obvious for an ordinary artisan to configure the teachings of Wendelrup to other power management systems employing more than two power modes with associated clock frequencies comprising of a quartz clock frequency, a real-time clock frequency, a standby clock frequency, and a system clock frequency.

Response to Arguments

23. All rejections of claim limitations as filed prior to Amendment dated December 20, 2004 not argued in entirety or substantively in response filed as said Amendment have been conceded by Applicant and the rejections are maintained from henceforth.

24. Applicant's arguments, with respect to claim 1 [claims 11 and 12 are similar], are substantive and have been fully considered but they are not persuasive.

25. Applicant alleges that "mere designation of 'standby mode' in Wendelrup does not indicate that the standby operation mode of Wendelrup is equivalent to 'operational time periods with low processor load or no processor load'". Applicant supports this allegation with a **conclusion** that Wendelrup's standby mode "is more *likely* a power conservation mode imposed on the system and not dictated by processor load". Firstly, Applicant correctly concedes that Wendelrup teaches "during standby mode, the equipment is active only during short intervals when listening for a page, and is powered down during the remaining intervals". One with ordinary skill in the art would recognize that a mode where the equipment is active only during short intervals and powered down during the remaining intervals [in contrast with a normal mode where the equipment is active during the whole period] is processing a lower load. Moreover, one with ordinary skill in the art would recognize that it is not logical, feasible, or workable for a

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communication device to process the same load in both a standby [intermittently powered] and normal mode [i.e., full load of signal processing of voice and other signals require continuous supply of power in order to function properly]. Secondly, Applicant's allegation is a mere conclusion and lacks any supporting evidence from Wendelrup that explicitly redefines the extremely well known term of "standby" that is used to signify a lower processing load. Thus, Applicant's particular allegation is not persuasive and the rejection is maintained.

26. Applicant alleges that "there is no indication that either the normal mode or standby mode of Wendelrup provide 'the same clock signal to the processor device as to the device for determining a clock time'". Examiner kindly invites Applicant to read Wendelrup in *entirety* to fully understand the essence of the invention and refer to relevant sections of the Office Action. Firstly, Wendelrup discloses two clock sources [a fast and a slow one]. Secondly, Wendelrup discloses a communication device with a time-display [operates on slow clock to display time] and a processing component [operates on slow or fast clock to perform communication functions]. Thirdly, Wendelrup discloses reducing power consumption by advocating the use of the slower clock source in standby mode. Therefore, when the communication device has low processor load [e.g., no calls], the communication device saves power by using the same slow clock [e.g., to listen for a page] as the time display. Thus, Applicant's particular allegation is not persuasive and the rejection is maintained.

27. Applicant alleges that Wendelrup does not "indicate that the processor can switch to a clockless state when there is no processor load". Applicant's particular allegation is pointless as the rejection was based on a *combination* of Harper and Wendelrup with Harper teaching the clockless state.

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28. Applicant alleges that Harper does not teach “switching the processor device to a clockless state”. Applicant supports this allegation by correctly conceding that Harper does disclose “stopping” a microprocessor clock. However, woefully missing is any credible argument as to why a stopped clock is not a clockless state [even under the broadest interpretation]. In essence, Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

29. As demonstrated above, Applicant's arguments, with respect to claim 1, are not persuasive and the rejection is respectfully maintained.

30. All other claims were not argued separately.

Conclusion

31. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tse Chen
January 18, 2005



JOHN R. COTTINGHAM
PRIMARY EXAMINER